

**TRAINING REPORT**

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| **Name of training** | **On-farm research establishment for research farmer and research managed trials** |
| **Purpose** | **Train host village extension personnel and farmers on principles of trial establishment and crop management/agronomy** |
| **Audience** | **On-farm experiment hosts from Laikala, Moleti and Mlali villages** |
| **Trainers** | **ICRISAT** |
| **Dates** | **29 December 2019 and 17th January 2020** |
| **Venue** | **Mlali community hall** |

**Background**

To ensure good implementation of trials, farmers hosting trials in 6 villages were given hands on trained on trial layout and the allied agronomy of the respective test crops. At each of these sites, a total of 10 farmers participated. These on-site training sessions took place in Mlali, Laikala and Manyusi in Kongwa District and Njoro 1 and 2 in Kiteto District (Table 1, Fig 1). These covered both the crop genetics and cropping systems.

**Training modules included:**

1. **Land selection and preparation:** Emphasis on proper siting was made participants were reminded the importance of good land selection land for a given crop variety. For example, they were told groundnut does well in loose sandy loam soils. This component also covered development of planting beds or soils free of lumps
2. **Plot layout**: The focus was for farmers to understand how many plots exist in each experiment and the entries are expected in each plot. They were trained on physical plot layout.
3. **Planting:** Participants were reminded of the importance of managing their plant populations and how that relates to yield. The focus was on row and within row spacing. Examples were given for all focus crops. That is groundnut -one seed per station and planted at 2-3 cm deep; sorghum and pearl millet planted at 2cm deep with 4-5 seeds per station to be thinned to 2. They were also reminded of the need to consider seed viability, seed size, plant nature that are key to proper establishment and growth of the crops.
4. **Thinning**: In both Kongwa and Kiteto, ants and other pests often eat planted and or germinating seed of especially small grains. Farmers shared this experience and the team agreed that for sorghum and pearl millet, 4-5 seeds be planted per station, but be thinned to a maximum of two per station to the right plant population.
5. **Fertilizer application**: Farmers were informed of the need to apply fertilizer especially with cereals. Preliminary instructions were given with promise to have hands on training when time to apply was due.
6. **Weeding:** Farmers were also taught on the importance of weeding once crops establishes in order to: minimize competition for soil nutrients, water, sunlight etc between plants and weeds. That weeds also harbor pests that may have deleterious effects on plants.

**Table 1. Profile of farmers engaged in the training and curriculum implemented**

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| District | Village | Number of farmers | Training activities |
| Kongwa | Laikala | Mwajabu Sefu: (working with 10 farmers) | Land preparation, Land selection, Planting, thinning, fertilizer application and weeding |
|  | Mlali | Moshi Maile: (working 10 farmers) | Land preparation, Land selection, Planting, thinning, fertilizer application and weeding |
|  | Moleti | Felestia Malainga: (working with 10) | Land preparation, Land selection, Planting, thinning, fertilizer application and weeding |
|  | Manyusi | Yuda Kirway: (working with 10) | Land preparation, Land selection, Planting, thinning, fertilizer application and weeding |
| Kiteto | Njoro 1 | Adam Hussein Ibula: (working 10 farmers) | Land preparation, Land selection, Planting, thinning, fertilizer application and weeding |
|  | Njoro 2 | Abdallah Maingu: (working with 10 farmers) | Land preparation, Land selection, Planting, thinning, fertilizer application and weeding |

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**Plate 1.** Hand on training on field layout and planting at Moshi Maile farm. **(Photo Credit:** Peter Ngowi, ICRISAT**)**



**TRAINING REPORT**

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| **Name of training** | **Community seed banks (CBS) management for pigeonpea seed production** |
| **Purpose** | **Refresher training on group organization, management, seed recovery and storage** |
| **Audience** | **Community Seed Bank leaders from Laikala, Moleti and Mlali villages** |
| **Trainers** | **ICRISAT** |
| **Dates** | **7th January 2020** |
| **Venue** | **Mlali community hall** |

**Background**

Seed banks are community based institutions for improving access to seed by rural communities. The Bank multiplies, stores and distributes seed usually of the Quality Declared Seed class to members in the community. Seed banks operate on commercial banking principles which have the ability to invest, grow the principle (seed) and lend only excess seed produced by its membership. No money is involved in the entire operation.

**Training rationale**

Key to a successful CSB is seed being passed on from initial to new beneficiaries. For this to happen, a strong and vibrant leadership team is required. This informal training was provided to farmers previously trained on seed bank management refresh their skills and ensure effective seed recovery is done. The following key areas were covered during the training was to remind them of the following roles:

1. **By-laws:** These are simple rules and regulations that farmers in the membership are supposed to follow. Leaders were shown how best to use By-laws to ensure farmers adhere to agreed seed operation framework.
2. **Monitoring:** The team shown the importance of monitoring and proper record keeping. They were also refreshed on seed production and variety characterization. Subsequently the CSB leaders developed a schedule for quality assurance for both pre and post-harvest crop handling to; a) Check on isolation distances; b) Crop husbandry practices; c) Purity (availability of off types in the fields and admixtures after harvest).
3. **Seed recovery**: Key issues on seed payback including storage and post-harvest handling were also handled

These training sessions were conducted in Mlali and drawing participants from Laikala, Moleti and Mlali taking advantage of the Innovation Platform (IP). This Training took place on 7th January 2020 at Mlali village hall (Table 2, Fig 2).

**Table 2. Participants to the community seed bank leaders refresher training**

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| District | Village | Farmer | Modules |
| Kongwa | Mlali Iyegu | Abineri Mgomba | Revisiting By-laws, Monitoring and seed recovery |
|  | Mlali Iyegu | Christina Joseph |
|  | Mlali Iyegu | Moshi Maile |
|  | Mlali | Jackson Chyiwoya |
|  | Mlali | Richard Mngurumi |
|  | Moleti | Winnie Saigodi |
|  | Moleti | Prisca Seif |
|  | Moleti | Shabani Ngoi |
|  | Moleti | Elisha Luhunga |
|  | Laikala | Kaleb Mberesero |
|  | Laikala | Mwajabu Sefu |
|  | Laikala | Samuel Mjoweni |

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**Plate 2. Some of the participants during CSB training. (Photo Credit:** Wills Munthali, ICRISAT**)**